

Office Action Response
Serial No. 09/663,864
Page 2

Page 5, beginning line 12 through line 36:

The upper male connector 231 is a solid, generally cylindrical connector member fabricated from a thermally non-conductive metal. In the preferred embodiment, the upper male connector 231 is stainless steel. At the top of the upper male connector 231 is an integrally formed threaded projection 185 for threadedly engaging the internal threads provided in the bore 186 of the electrode connector 165 to mechanically and electrically interconnect the upper male connector 231 to the embedded electrode 73. In particular, at the top of the upper male connector 231 is a radially extending portion 187 that serves as a conductive RF path as between the upper male connector 231 and the electrode connector 165. The conductive RF path is formed after the threaded projection 185 is threaded into the bore 186 of the electrode connector 165 so that the radially extending portion 187 is flush against the electrode connector 165. Thus, the conductive RF path follows along the upper male connector 231, through the radially extending portion 187 to electrode connector 165, and then to the electrode 73. However, one skilled in the art will recognize that the chuck body 162, the chuck electrode connector 165, and the upper male electrode connector 231 may be coupled in any other manner suitable for rigidly securing each component together and providing an RF conductive path.

Page 5, beginning line 37 through page 6, line 11:

A2
The upper male connector 231 is generally conical or has a tapered distal end 189. Moreover, the upper male connector 231 may be plated with electrically conductive material or successive layers of conductive materials such as aluminum, copper, silver, gold, and nickel. In the preferred embodiment, the plating is a successive layer of nickel, copper, nickel, and gold. In particular, the plating is performed to enhance RF current conduction, reduce the susceptibility to corrosion, minimize magnetic susceptibility, and minimize contact resistance between the upper male connector 231 and its female counterpart of the electrical coupler 230.

Page 8, beginning line 33 through page 9, line 6:

A3
FIG. 3B is a detailed view of the circled portion of the electrical coupler 230 shown in FIG. 3A. The outer connector element 238 is preferably molded over top 205 and side 204 portions of the thermally conductive flange 202. Notwithstanding a bottom portion 203 of the